FRENCH PATENT APPLICATION

FOR:

Process for the production of a mixture comprising hydrogen and CO on behalf of:

L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE

Invention of: Messrs. Serguei ZHDANOK and
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ABSTRACT

invention relates to а process for production of a mixture comprising hydrogen and CO by partial oxidation of a hydrocarbon by an oxygenated medium, according to which the processing is carried out under autothermal conditions with the heat given off by said oxidation being recovered to maintain the endo-thermic reactions which take place between the non-oxidized fraction of said hydrocarbon and the CO2 steam produced by said oxidation, the being characterized in that the mixture reaction gas comprising the hydrocarbon and the oxygenated medium is passed through a porous medium (4) which has been preheated beforehand, thus making it possible to heat the reaction gas mixture by heat exchange with the porous medium to a temperature threshold sufficient to initiate combustion reactions, rendering unnecessary an external heat supply when operating continuously.

Figure 1